

At page 17, replace the first full paragraph with the following new paragraph:

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FIG. 6 is a schematic drawing showing a turn portion of a stator of an alternator according to Embodiment 3 of the present invention; FIG. 6a is a cross section taken along the line A-A in FIG. 6; FIG. 6b is a cross section taken along the line B-B in FIG. 6. In the present embodiment, a coil cross-sectional area a in the slots is larger than a coil cross-sectional area b at the coil ends 19.

IN THE CLAIMS:

Please enter the following amended claims:

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1. (Amended) A stator for an alternator comprising:

a stator core fixed to a case and facing a rotor, and formed in a circumferential direction with a number of radially extending slots of a rectangular cross section; and a stator coil installed in said slots of said stator core, wherein said stator coil is formed into a predetermined shape prior to installation in said slots; and

said stator coil comprising wire-shaped conductors wound so as to alternately occupy an inner layer and an outer layer in a slot depth direction within said slots at intervals of a predetermined number of slots, said conductors being bent back outside said slots at axial end surfaces of said stator core to form a plurality of turn portions, said plurality of turn portions being bent back in a similar shape inclined with respect to an outer circumferential surface of the stator core and so as to align in rows in a circumferential direction and form coil end groups, and, a cross-section of at least a principal portion of said stator coil inside said slots is approximately

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/881,089
Attorney Docket No. Q64816

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rectangular, a cross-section of at least a portion including end portions of said coil end is approximately circular or approximately elliptic, and a cross-sectional area of said approximately rectangular cross-sectional portion differs from that of said approximately circular cross-sectional portion or said approximately elliptic cross-sectional portion.

2. (Amended) A stator for an alternator according to Claim 1 wherein:

a cross section of said conductors comprising said coil ends is approximately circular or approximately elliptic throughout a substantial entirety of said conductors.

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5. (Amended) A stator for an alternator according to Claim 4 wherein:

a cross section of end portions of said U-shaped conductor segments is approximately circular or approximately elliptic.

Please enter the following new claims:

18. (New) A method of forming a stator for an alternator, comprising the steps of:

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fixing a stator core to a case, said stator core facing a rotor and formed in a circumferential direction with a number of radially extending slots of a rectangular cross section; installing a stator coil in said slots of said stator core;

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/881,089
Attorney Docket No. Q64816

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cont.
wherein said stator coil is formed into a predetermined shape prior to installation
in said slots;

wherein said stator coil comprises wire-shaped conductors wound so as to
alternately occupy an inner layer and an outer layer in a slot depth direction within said slots at
intervals of a predetermined number of slots;

bending said conductors back outside said slots at axial end surfaces of said stator core to
form a plurality of turn portions;

wherein said plurality of turn portions being bent back in a similar shape are
inclined with respect to an outer circumferential surface of the stator core; and

aligning said plurality of turn portions in rows in a circumferential direction to form coil
end groups;

wherein a cross-section of at least a principal portion of said stator coil inside said
slots is substantially rectangular;

wherein a cross-section of at least a portion including end portions of said coil end
is substantially circular or substantially elliptic; and

wherein a cross-sectional area of said substantially rectangular cross-sectional
portion differs from that of said substantially circular cross-sectional portion or said substantially
elliptic cross-sectional portion.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/881,089
Attorney Docket No. Q64816

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cont.
19. (New) The method of forming a stator for an alternator of claim 18, further comprising the step of:

pressing portions corresponding to coil ends in said conductors of a substantially rectangular cross section throughout to a substantially circular cross section or approximately elliptic cross section.

20. (New) The method of forming a stator for an alternator of claim 18, further comprising the step of:

pressing portions of said conductors of a substantially circular cross section throughout in said slots to a substantially rectangular cross section.

21. (New) The method of forming a stator for an alternator of claim 20, further comprising the step of:

pressing portions of said conductors in said slots to make a cross-sectional area thereof larger than a cross-sectional area of said conductors of said coil ends.

22. (New) The method of forming a stator for an alternator of claim 20, further comprising the steps of:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/881,089
Attorney Docket No. Q64816

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installing portions of said conductors of a substantially circular cross section throughout
in said slots and pressing said portions to a substantially rectangular cross section.

23. (New) The method of forming a stator for an alternator of claim 20, further
comprising the steps of:

forming only portions of said conductors of a substantially circular cross section
throughout in said slots to a wave shape, and subsequently pressing said wave shape portions to a
substantially rectangular cross section.

24. (New) The method of forming a stator for an alternator of claim 20, further
comprising the step of:

forming portions of said conductors of a substantially circular cross section throughout in
said slots into a shape of large cross section and subsequently pressing said portions to a
substantially rectangular cross section.